

Send information for publication on this page to:

Col. Willard L. Meader
 HQ AFSC/SGB
 Andrews AFB
 Washington, DC 20334

Space Medicine Branch Report

More Communication with Members Sought

In accordance with the desires of the Executive Committee of the Space Medicine Branch, the minutes of their meeting are published to better inform Branch membership about current activities.

Reflected in those minutes is a desire to gather and disseminate information about members' activities as well as on-going and future space medicine meetings and events. Items of this nature should be forwarded to the Secretary-Treasurer for inclusion in this column.

At the scientific meeting in New Orleans, the Space Medicine Branch will co-sponsor, with the AIAA, a session entitled "The Future of Biological Engineering in Space." This is a first for our Branch, and a manifestation of the Executive Committee's desire to encourage more interest and activity in space medicine. This session is tentatively scheduled for Wednesday, May 10 from 0900-1215. Plan now to attend and support this endeavor.

The first President's Letter should have been received by Branch members by now and is further evidence of the renewal of interest and burgeoning opportunities, which is increasing the communications and scientific stimulus in space medicine.

Executive Committee Meeting
 Space Medicine Branch
 Las Vegas Hilton
 10 May 1977

1. The Executive Committee members and officers in attendance included the following individuals: Dr. Karl H. Houghton, Maj. Gen. Heinz S. Fuchs, Dr. Paul A. Campbell, Dr. Walton L. Jones, Capt. Paul Tyler, Dr. John M. Lagerwerff, and Col. George C. Mohr
2. The following agenda items were discussed and various actions approved.

a) The matter of emeritus membership was discussed. The committee rejected the concept, concluding that "active dues-paying" status encourages constructive participation vital for strengthening the Branch. "Emeritus status" would tend to discourage older members from bringing their talents to bear for the good of the Branch.

b) The matter of a "special category" membership was also rejected. The committee did not wish to establish a precedent for "special membership categories" that would only encourage politically sensitive proliferation of requests for that particular status.

c) The matter of issuance of a "new" certificate of membership was endorsed by the committee. It was agreed that issuing a uniform, new, dated, membership certificate to each individual who remits his \$3.00 dues payment in the coming year would assure a complete, up-to-date record of "active" members. The secretary-treasurer is authorized to implement the proposal.

d) The matter of written nominations for the Strughold Award was approved by the Executive Committee. A timely request for written nominations with supporting justification and an abbreviated curriculum vitae should be sent to the membership.

e) The Executive Committee also recommended that, in keeping with parallel actions by other elements of the Association, the Space Medicine Branch membership should be afforded an opportunity to vote by mail ballot for their choice of officers and Executive Committee members from among nominees selected by a nominating committee.

f) The Executive Committee recommended that the president of the Space Medicine Branch select and propose three individuals to serve as "constituent representatives" to the Association's Editorial Board. Col. Dan Spoor was suggested as a candidate for one of the constituent representative positions. No other suggestions were immediately available from the committee attendees.

g) The Executive Committee affirmed the requirement to send info copies of all minutes of meetings and reports of actions taken to Dr. Paul Campbell, our Bibliographer.

h) Considerable discussion ensued concerning means to enhance the image and vitality of the Space Medicine Branch. The Executive Committee endorsed the following concepts and proposals:

(1) The Branch should consider asking the Secretary-Treasurer to solicit newsworthy items, including comments on technology advances, awards, critiques on issues, personal notes, achievements, etc., from the membership in order to compile a "news-letter" for distribution to the membership at the time the dues statement is forwarded.

(2) The President's Report should be prepared in manuscript form and preserved as an official record of the Branch.

(3) The Branch should consider sponsoring a designated Space Medicine session

under the auspices of the Space Medicine Branch as part of the Association's Scientific Program. Technical papers need not be limited to stereotypical subjects of classical space biology.

(4) The Branch leadership should consider developing and distributing a questionnaire for gaining the advice, comments, and proposals of the membership regarding means to improve the quality and productivity of the Branch.

(5) Members of the Executive Committee and Branch officers should forward comments and suggestions regarding means to improve the Branch to the Secretary-Treasurer for consolidation and forwarding to the President-Elect (Gen. Fuchs).

i) The Executive Committee and officers of the Branch should encourage and participate in developing resolutions to present to the Resolution Committee of the Association.

j) The Executive Committee and officers of the Branch should ensure adequate publicity for next year's luncheon and luncheon speaker.

k) The Executive Committee reviewed 11 scientific articles published in the preprints (purchased for the Branch by Col. Mohr). A paper by Sq. Ldr. M. W. Whittle entitled "Regional Changes in Body Volume Observed in the Skylab Astronauts" was unanimously selected as winner of the Space Paper of the Year Award for 1977.

l) The Executive Committee reviewed the nominees for the Hubertus Strughold Award. Dr. William K. Douglas was unanimously selected.

3. The Executive Committee did not have ready access at the meeting to a copy of the Constitution and By-Laws of the Space Medicine Branch. It was recommended that the officers of the Branch, after reviewing the proposed and recommended actions in the light of the provisions of the Constitution and By-Laws, implement those actions not prohibited by the Constitution and/or By-Laws and take additional action to propose indicated changes to the Constitution and By-Laws as deemed advisable.

Respectfully submitted,
 Willard L. Meader,
 Secretary-Treasurer
 Space Medicine Branch

(Next Month: Minutes of the annual meeting.)

NASA, AIAA Publish Separate Books On Uses of Knowledge about Space

Adventuring in space, when space was simply a place to go in the search for knowledge, has been succeeded by utilization of the knowledge adventuring brought—using the position of space, using the environment of space, and using the technology that brought us to space.

Recently, two 8 x 10 in. books have been printed to remind us where we have been, where we are now, and where we're going. The two publications are quite different . . . yet similar. Both treat space as both a place and a tool, a new tool to be sure, in the technology that drives us all.

The books are: "Spinoff 1977," the annual report of NASA's Technology Utilization Program, and "Space: A Resource for Earth," a review by the Technical Committee on Space Systems of the American Institute of Aeronautics and Astronautics.

The AIAA book deals entirely with the use of space itself—as a place where platforms carrying communications gear can relay messages from one side of Earth to the other; where Earth-looking cameras can help man plot boundaries, navigate the sea lanes, plan land use, forecast weather; where new potentials are arising for space processing, for space-based solar power, and for life science discoveries.

The NASA book ranges more widely . . . from use of the space environment itself for furthering human aims to use of aerospace-developed technology on Earth.

NASA has already launched about 300 satellites or space probes. The knowledge they have produced is monumental. In 20 years, we've learned more about the universe than in all the prior years of history. And more is to come.

But the NASA volume treats the use of space itself—the complete focus of the AIAA book—as only one of its concerns. Yes, NASA will continue probing deep space. Yes, it will continue its interests in studying Earth from space for the knowledge it can bring in meteorology, geology, and biology which, in turn, can spark better weather prediction, precise earthquake prediction, or improved health care.

Much of this new knowledge will be obtained with the recoverable Space Shuttle, which will be launched as a space vehicle, operate in space as a satellite and, on its return to earth, land like an airplane.

The Shuttle is the name for the combination of two parts—the Shuttle Orbiter, or space vehicle itself, and Skylab, the package of experiments and a pressurized module for the scientists who will operate the experiments.

In actual practice, the experiments could be replaced by a station for repairing disabled unmanned satellites in space, or a manufacturing operation for such things as producing better electronic crystals or better pharmaceuticals.

But NASA's work is in both space and aviation, and the book reflects this. For

example, NASA is heavily involved in testing the shape of aircraft wings and propellers to find more efficient and less costly designs; in developing a more efficient way of moving aircraft control surfaces using electrical power operated through a computer; in crash-testing small aircraft to improve survivability; in finding composite materials to make aircraft both lighter and stronger; in redesigning helicopters, using different combinations of rotors, and even wings, to improve performance; and a host of other research and development projects.

Other direct applications of NASA hardware:

- Communications — originating programs from three cities in India, the Indian government can, by sending TV signals to the ATS-6 satellite for rebroadcast, reach every village in India. In a recent test, 5 million rural Indians watched daily programs providing both entertainment, such as folk music, and education, such as family planning, increasing crop yields, and nutrition and hygiene.

- Weather — satellite TV films are familiar to everyone; they're seen on the TV weather news every night. Less familiar is satellite use in crop management (spotting unhealthy crops), land use monitoring (the extent of floods), water pollution (locating dumped wastes), ocean dynamics (wave height, current, temperature, tide, etc.)

Down on earth, airplanes with infrared scanners are aiding energy conservation by spotting buildings with inadequate insulation . . . the building temperatures show up in different colors; a pilot plant in Orange, Ca, is evaluating a NASA-developed technique to make activated carbon from burning solid sewage . . . then using the carbon to filter other sewage in a process that feeds itself; wastewater lagoons planted with water hyacinths are showing that the plants can thrive on sewage and, in the process, clean up polluted waters . . . they can also be harvested as a source of fuel and fertilizer and as a protein and mineral additive to cattle feed.

But much of NASA-developed technology has already found its way into everyday life and the applications are called "spinoffs" because, while developed in the space program, their everyday uses are in unanticipated extras.

Like the auto monitor, which can diagnose in 25 minutes what's wrong with your car, why it's bad, and how to fix it. First, though, it was part of an environmental control and life-support system for a prototype space station.

Like the airflow mitt. Laminar flow technology was developed for "clean rooms" for aerospace purposes. But the same airflow techniques were used to transform a simple glove into an automatic hand exerciser to flex the fingers of burn victims without the need for a therapist.

Although the perspective of the AIAA

book is narrower, its focus is sharper and more detailed as it explains the workings of the satellite systems already in place and the new potentials ahead.

Its table of contents includes: Communication Satellite Systems, Navigation Satellite Systems, Land Observations, Sea and Maritime Observations, Atmospheric Observations, and New Potentials—Space Processing, Life Sciences, and Space-Based Solar Power.

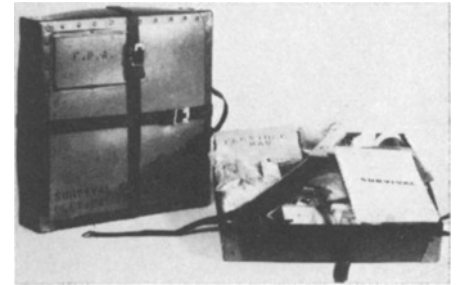
Each section is a primer on what has gone before, what's operating now, and what the future can hold. And the future looks like this:

- Satellites throughout the world to handle voice communications and TV broadcasts. The addition of more broadcasting bands and more power. Eventual development of "wrist-radio" communicators by which every person on earth can communicate with every other person.

- Satellites to be used as factories for processing materials which cannot be processed—or not so well—on earth.

- Satellites to gather solar power and beam it to earth.

Both volumes show graphically that the space program continues to pay off handsomely in down-to-earth applications while looking ahead to even more applications.



FPA SURVIVAL KIT—The Flying Physicians Association is marketing a field-tested emergency survival kit, weighing 18 pounds, which contains basic survival equipment, a food and cooking kit, and a first aid kit. The \$179 unit was designed to be carried in an aircraft and used after a crash, particularly one in rugged terrain. Too often, according to the FPA Safety Committee, which developed the kit, survival in such circumstances depends on a few items of survival gear, such as tents, blankets, fishing line, axes, and the like. The kit may be ordered from FPA at 801 Green Bay Rd., Lake Bluff, IL 60044.

ASMA Executive Committee Names 17 Associate Fellows

The Executive Committee of ASMA has selected 17 new Associate Fellows:

Lt. Col. Patricia L. Birch, USAF, NC; LCDR James A. Brady, MSC, USN; John C. Buckingham, M.D.; Lt. Col. John A. Calcagni, USAF; Prof. Dr. Mahmoud A. Hassanein; Lt. Col. G. K. Lochridge;

Raymond B. Mabrey, D.O.; Richard L. Miller, Ph.D.; Capt. Ruth L. Nancarrow, USAF, NC; Col. Ensor Rodriguez-Lopez, USAF, MC; Lt. Col. Mary L. Ruddy, USAF, NC; Esar Shvartz, Ph.D.; Laurence R. Simson, Jr., M.D.; Capt. Roger L. Stork, USAF, BSC; LCDR Victoria M. Voge, MC, USN; Lt. Col. James D. Wagner II, USAF, MC; and Sqn. Ldr. Michael W. Whittle, RAF.

AFIP Forensic Pathology Advanced Course Set

The Armed Forces Institute of Pathology will offer its Advanced Forensic Pathology Course May 1-5 at the FBI Academy, Quantico, Va. The course is open only to those who already have taken the AFIP basic course or have equivalent experience in forensic pathology.

Course content will include immunohematology, ballistics, forensic photography, handling physical evidence, scene investigation of homicides, fingerprint examination, presenting findings in court, pathology of poisons, and patterns of injury.

Further information may be obtained from:

**The Director
Armed Forces Institute
of Pathology
ATTN: AFIP-EDZ
Washington, DC 20306**

Papers Sought for Modeling, Simulation Conference in April

A call for papers has been issued—deadline Jan. 27—for the Ninth Annual Pittsburgh Conference on Modeling and Simulation, which is scheduled to be held April 27-28. Joint sponsors are the School of Engineering at the University of Pittsburgh and the Pittsburgh sections of the Institute of Electrical and Electronic Engineers, the Systems, Man, and Cybernetics Society, the Instrument Society of America, the Society for Computer Simulation, and the International Association for Mathematics and Computers in Simulation.

Abstracts of 50 words and summaries of sufficient length to permit evaluation should be sent to:

**William G. Vogte
Modeling & Simulation Conf.
348 Benedume Engineer. Hall
University of Pittsburgh
Pittsburgh, PA 15261**

130 Symposia at Feb. 12-17 Meeting Planned by AAAS

The American Academy for the Advancement of Science, which has scheduled its 1978 meeting for Feb. 12-17, is planning more than 130 symposia on subjects ranging from sociobiology through recombinant DNA to stress and aging.

The Sheraton-Park Hotel in Washington, DC, will be headquarters for the meeting, although meeting sessions will also be held in the nearby Shoreham Hotel.

Further information is available from:
**AAAS Meetings
1776 Massachusetts Ave., N.W.
Washington, DC 20036**

'78 Congress Issues Call for Papers For London Meeting

The International Congress of Aerospace Medicine has issued a Call for Papers for its meeting to be held Sept. 4-8 at the Royal College of Surgeons, London. The deadline is May 15.

The scientific program will be devoted to recent advances in the research and practice of civil and military aerospace medicine, including physiology, psychology, ergonomics, and clinical medicine.

The time allocated for each paper will be 15 minutes, whether presented by slides or posters. Only original matter should be submitted. An individual may not present more than one paper. Official languages will be English and French, with simultaneous translation.

Submitted papers must include: title of paper, name and title of each author, identification of the presenting author, and a mailing address for correspondence; and a 400-word-or-less abstract for publication in the program of the Congress. Typed double-spaced, it should be sent to the Scientific Committee Chairman:

**Gp. Capt. John Erusting, OBE, RAF
RAF Institute of Av. Medicine
Farnborough, Hampshire GU14 6SZ
England**

Noise Meetings Set for May '78

Two separate meetings on noise will be held next May.

"Designing for Noise Control" will be the theme of the May 8-10 International Conference on Noise Control Engineering, to be held in the Jack Tarr Hotel, San Francisco, Ca.

May 7-9, at the Tropicana Hotel in San Antonio, Tx, the National Foundation on Noise, Hearing, and Balance will hold its National Symposium on Noise.

Further information on the San Francisco meeting may be obtained from:

**Inter-Noise 78
P.O. Box 3469
Arlington Branch
Poughkeepsie, NY 12603**

Further information on the San Antonio meeting may be obtained from:

**John D. Seifert, M.D.
Course Director
National Noise Symposium
Suite 206, Eastgate Plaza
1540 Eastgate Dr.
Garland, Tx 75041**

FAA Denies Ban On Pilot Smoking

The Federal Aviation Administration in September refused to ban smoking in airline cockpits and to prohibit aircrew from smoking 8 hours prior to takeoff.

The petition against smoking had been brought in April, 1976, by the Airline Pilots Committee of '76, the Public Citizens Health Research Group, and the Aviation Consumer Action Project. They cited a report by the Health Research Group that smoking increases carbon monoxide in the blood and decreases the oxygen-carrying capacity of the blood, thus producing less visual acuity, brightness perception, manual dexterity, and coordination.

FAA, while granting the lowered oxygen-carrying capacity of the blood in smokers, said there is no evidence of deleterious effects from this. Further, FAA said, there is evidence that the body adapts to an increase in carbon monoxide by increasing red blood cell mass, thus increasing its oxygen-carrying ability.



EATON LAB'S AWARD—The first Health Sciences Advancement Award of the American Urological Association was presented recently to Eaton Laboratories for its "many contributions to the advancement of education and research in urology and service to the practicing urologist." Raymond J. Lauenstein, left, Eaton's director of professional services, accepts the award from William B. Garlick, M.D., center, AUA secretary and Jay Y. Gillenwater, M.D., chairman of the AUA Research Foundation. Eaton Laboratories is a Corporate Member of ASMA.

Clinical Engineering

The first issue of the new quarterly Journal of Clinical Engineering has been issued by Quest Publishing Co. Morton D. Schwartz, Ph.D., of the Biomedical Engineering Department, California State University, Long Beach, Editor, emphasizes that the Journal concentrates on the practical day-to-day needs of the clinical engineer.

A single complimentary copy of the new quarterly is available from:

**Mrs. Charlene Whitney
Quest Publishing Co.
P.O. Box 4141
Diamond Bar, CA 91765**

Bibliography on Radiation

The staff of the Florida Technological University Library, Orlando, recently compiled an annotated bibliography on "The Effects of Microwave Radiation on Humans." It is available for 50¢ per copy from:

**Library Director
Florida Tech. University
Box 25000
Orlando, Fl 32816**

Col. H. E. Bell Named New Chief of USAF Biomedical Sciences



Col. Herbert E. Bell, USAF, BSC, has been appointed Chief of the USAF Biomedical Sciences Corps, effective Feb. 1. Col. Bell succeeds Col. Thomas L. Cocheres, who is retiring.

At present Commander of the USAF Occupational and Environmental Health Laboratory, Aerospace Medical Division, Brooks, AFB, Tx, Col. Bell was appointed to his new command by Lt. Gen. George E. Schafer, USAF, MC, Surgeon General of the Air Force.

The Biomedical Services Corps is one of six within the USAF Medical Service. It has about 1300 officers working in about 15 health and medical scientific specialties, including bioenvironmental engineering, aerospace physiology, clinical psychology, dietetics, occupational therapy, optometry, pharmacy, and podiatry.

A native of Charlottesville, Va, Col. Bell graduated from Virginia Military Institute in 1951, and joined the Air Force as Sanitary and Industrial Hygiene Engineer at Wright-Patterson AFB, Oh. He received his Master's Degree in 1954 from the Massachusetts Institute of Technology.

An Associate Fellow of the Aerospace Medical Association, he also holds the Legion of Merit with one oak leaf cluster, Meritorious Service Medal, Joint Service Commendation Medal, USAF Commendation Medal, Outstanding Unit Award, and USAF Missile Badge.

COL R. W. BAILEY:

Retired—But Not Retiring

COL Robert W. Bailey, MSC, USA, who retired in July after 38 years of service, isn't languishing in retirement.

Commander since 1965 of the U.S. Army Aeromedical Research Laboratory at Ft. Rucker, Al, COL Bailey has remained in Enterprise, Al, where he is available as a consultant and is an active partner in a sun-control, window treatment business venture.

Trained in physiological optics at the University of Indiana, COL Bailey came to Ft. Rucker and USAARL in 1963 when it was but a year old. Two years later he took command. At retirement, he handed over command to COL Stanley C. Knapp, MC, USA. He was awarded both the Distinguished Service Medal, the Army's highest honor for achievement, and the Army Medical Department Medallion, and was the guest of honor at a testimonial dinner by nearly 300 friends and colleagues.

"The only thing unique about my service," COL Bailey told a reporter, "is that I'm the only laboratory commander who does not have a medical degree. At least, I think I am. I guess when I took command back in 1965 they put a square peg in a round hole . . . and it has taken 12 years to figure out how to get it out."

Initially, USAARL had a 16-man staff and a \$250,000 budget. Today there are 128 on the staff working on about 80 projects a year with a budget of \$2.5 million.

During those years, USAARL has: drastically reduced midair collisions in helicopters by increasing their visibility with paint; contributed to the design of the SPH-4 flight crew helmet; and worked on life-support equipment, oxygen systems, night-vision goggles, anti-collision beacons for aircraft, and the effects of low-frequency noise on hearing.

But COL Bailey takes little credit for these accomplishments himself. His responsibility, he points out, was to provide the kind of atmosphere in which such creative work could be done—not to do it himself but to set the stage for the multidisciplinary team of physicians, psychologists, bio-physicists, optometrists, aero-engineers, metalurgists, and other experts, supported by shop craftsmen he calls "the best people I've ever seen."

ACPM Elects Fellows

Four members of the Aerospace Medical Association have been elected Fellows of the American College of Preventive Medicine.

Lt. Col. Paul T. Hansen, USAF, MC, San Antonio, Tx, was elected a Fellow in Aerospace Medicine and Occupational Medicine. Elected Fellows in Aerospace Medicine were Maj. George E. Schwender, USAF, MC, Hill AFB, Ut; Col. Daniel H. Spoor, USAF, MC, Brooks AFB, Ut; and Maj. James E. Yoder, USAF, MC, APO San Francisco.



DSM MEDAL—Col. Robert W. Bailey, MSC, USA, Commander of the U.S. Army Aeromedical Research Laboratory for 12 years, receives the U.S. Army Distinguished Service Medal during retirement ceremonies. Presenting the medal is MG James C. Smith, Commander of Ft. Rucker. Col. Bailey, who put in 38 years of service, also received the Army Medical Department Medallion.

Army's LTG Pixley Chosen as New Surgeon General

LTG Charles C. Pixley, MC, USA, was named Army Surgeon General Oct. 1.

Rated as a paratrooper and a Senior Flight Surgeon, he had been Superintendent of the Academy of Health Sciences, Ft. Sam Houston, Tx, at the time of his appointment.

A native of Oregon, he received his M.D. in 1947 from the University of Oregon's Medical School. His surgical residency was at Robert Packer Hospital, Sayre, Pa, and Brooke General Hospital, San Antonio, Tx.

He also attended the Advanced Course, Medical Service School, Brooke Army Medical Center, 1958; USAF School of Aviation Medicine, Brooks AFB, Tx, 1959; Command and General Staff College, 1960; and Air War College, Maxwell AFB, Al, 1965.

LTG Pixley has served two tours overseas—in 1959 he was Commander of the 44th Surgical Hospital in Korea and in 1966 commanded the 68th Medical Group in Vietnam. In that post, he supervised four surgical hospitals, four evacuation hospitals, a helicopter ambulance company, and other supporting medical detachments.

A Fellow of the American College of Surgeons and a Diplomate of the American Board of Surgery, he also holds the Legion of Merit with two oak leaf clusters and two Army Commendation Medals.